

ON THE PLANTS OF NEW SOUTH WALES—No. VI.

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Class II. MONOCOTYLEDONS.

Of the monocotyledonous orders represented in Australia, eight have the ovary inferior, and of these the Orchids are by far the most numerous. In comparing the species recorded for the eastern colonies, the following is the result :

		Orders.	Genera.	Species.
Victoria	4	29	76
New South Wales	7	51	150
Queensland	8	64	129

The numbers here given may be regarded simply as an approximation, and as the scrubs of Queensland become better known, the species for that colony will be considerably increased. Imperfect, however, as the estimate is, it gives a fair idea of the genera represented in the respective colonies and of the range to which they are subject. Four orders, viz. *Scitamineæ*, *Burmanniaceæ*, *Taccaceæ*, and *Dioscorideæ* do not extend to Victoria, but the *Orchideæ* are fairly distributed through the three colonies, Victoria having 22 genera and 62 species, New South Wales 35 genera and 126 species, and Queensland 42 genera and 94 species. In this section of the Monocotyledons, the Orchids are by far the most interesting, as being one of "the most sharply defined and numerous" of orders, and comprising some of the most beautiful of Australian flowers. *Dendrobium speciosum*, was one of the first species to invite the attention of early collectors, and *Calanthe veratrifolia*, which has recently been found to extend to the Blue Mountains, has long been cultivated in Europe. *Phaius grandifolius* is also another admired plant, but perhaps, the most beautiful of orchids yet known in New South Wales is *Sarcochilus Fitzgeraldi*, distinguished by its long racemes of flowers "snowy white spotted with rich lake or maroon." This, as well as the preceding, is elegantly figured amongst Mr. Fitzgerald's "Australian Orchids." The species of *Galeola* are climbing,

leafless epiphytes, sometimes ascending to a great height, closely adhering to the stems of trees, and throwing out rootlets opposite the bracts. The smaller species occurs in the neighbourhood of Sydney and Liverpool, but the larger one belongs rather to the northern parts of the colony and Queensland. *Prasophyllum elatum* is the tallest of our terrestrial orchids, and *Oberonia palmicola*, *Bolbophyllum minutissimum*, and *Corysanthes unguiculata* amongst the smallest of the order. The genus *Diuris*, which has at least 10 species in New South Wales, is peculiar to Australia, and as Mr. Bentham remarks, is not to be confounded with any other. *Spiranthes australis* has a wide range over Asia and part of Europe, whilst the following genera are represented in New Zealand, *Dendrobium*, *Bolbophyllum*, *Sarcochilus*, *Gastrodia*, *Thelymitra*, *Adenochilus*, *Corysanthes*, *Pterostylis*, *Orthoceras*, *Prasophyllum*, *Microtis*, *Cyrtostylis* and *Caladenia*. *Sarcochilus parviflorus* is one of our most southern species, common to Victoria and Tasmania. *Glossodia major* is remarkable for its sweetly scented leaf, whilst *Caleana* and *Drakæa* have the labellum so irritable that the least breeze causes it to descend like a lid on the flower. These genera extend to West Australia, and the late Mr. Drummond called the one "The Fly Catching" and the other "The Hinged Orchid." He says of the former, "In this Orchid, *C. nigrita*, the anthers are placed in the lower part of the flower, and the upper part (the lid), which I think must be the stigma, has to pass and repass them as the flower opens and shuts. When touched with anything, the lid instantly closes, but soon opens again if it catches nothing; when it captures an insect, it remains shut longer than I have continued to watch." Mr. Fitzgerald, who has figured *C. major* and *C. minor*, gives a very interesting account of the mode in which he supposes they are fertilised by means of insects. He says that they are sometimes destroyed by the process, and that the usual time for the flower to remain shut when no insect is enclosed, is from a quarter of an hour to an hour.

Of the other plants of this section *Vallisneria spiralis* and *Alpinia carulea* are interesting, the former of which is curious in its mode of fertilisation, and the latter belongs to a genus known for medicinal properties. The Iris family is represented for the most part by *Patersonia* and *Libertia* the one exclusively Australian and the other extending to New Zealand and extra-tropical South America. *Sisyrinchium micranthum* has come from South America to this colony and is spreading in all directions.

Amongst the Amaryllideæ of New South Wales, the most remarkable is the Gigantic Lily (*Doryanthes excelsa*), which soon attracted the notice of the early colonists and was elegantly figured by Bauer in the beginning of the present century. It has only a limited range, but *D. Palmeri* which was discovered by Mr. W. Hill, extends far into Queensland, being found on the Mackenzie River and elsewhere. The late Sir Thomas Mitchell was one of the first to record the beauties of our *Calostemma*. Of *C. candidum* (Lindl.), which he found on the Gwydir, he says, "I found there a flowery desert, the richest part of the adjacent country being quite covered with a fragrant white amaryllis in full bloom." Again on the Goulburn range he met with the pink coloured species *C. carneum* (Lindl.). This genus is endemic in Australia, and, as the name implies, is distinguished for the corona of the flower. The remaining order, that of Dioscorideæ is a small one, of which only one genus occurs in Australia. The large "Yam" (*Dioscorea sativa*), which is common to many tropical and subtropical countries in the new and old world, is indigenous in Northern Australia and the Northern parts of Queensland, but the species with which we are more immediately concerned is *D. transversa*, which has a wide range, being found here and there from the neighbourhood of Newcastle to Rockingham Bay. According to the testimony of the late M. Thozet, the tubers of this species are eaten by the aboriginal natives under the name of *Kowar*, and that too without any preparation, which is remarkable, as many of the genus in consequence

of their acrid properties cannot be used without roasting or boiling.



A LIST OF THE CYPRÆIDÆ FOUND ON THE COAST OF NEW
CALEDONIA AND LOYALTY ISLANDS.

BY RICHARD C. ROSSITER.*

In this paper I have brought together sixty species, some never before recorded from this part of the world. Mr. H. Crosse in 1869 published a list in the *Journal de Conchyliologie* 3rd series, Vol. XVII., p. 36-49, where he enumerated forty-five species. But more specimens of some of these so called species have been found, reducing his number to thirty-eight; the other seven being spurious species or monstrosities.

Genus CYPRÆA.

1. CYPRÆA ARGUS, Linn.

Reeve, *Conch. Icon.*, pl. 3, fig. 8.

North Coast of New Caledonia; Isle of Pines and Loyalty Islands.

2. CYPRÆA ASELLUS, Linn.

Reeve, *Conch. Icon.*, pl. 18, fig. 98.

Nouméa; Loyalty Islands, found under stones and coral.

3. CYPRÆA CARNEOLA, Linn.

Reeve, *Conch. Icon.*, pl. 6, fig. 19.

New Caledonia; Loyalty Islands and Isle of Pines.

Found very large, as large as *C. talpa*, and has often been taken by non-scientific collectors for *C. aurantia*.

*Communicated by Mr. J. Brazier, C.M.Z.S.